

1 UNITED STATES DISTRICT COURT  
2 SOUTHERN DISTRICT OF NEW YORK  
3 -----x

4 KATHRYN TOWNSEND GRIFFIN, *et*  
5 *al.*,

6 Plaintiffs,

7 v.

8 17 Cv 5221 (LLS)

9 EDWARD CHRISTOPHER SHEERAN,  
10 personally known as Ed  
11 Sheeran, *et al.*,

12 Defendants.  
13 -----x

14 New York, N.Y.  
15 April 24, 2023  
16 11:00 a.m.

17 Before:

18 HON. LOUIS L. STANTON,

19 District Judge

20 APPEARANCES

21 FRANK & ASSOCIATES PC  
22 BY: PATRICK RYAN FRANK

23 KEISHA RICE

24 KATHERINE VIKER

25 - AND -

BEN CRUMP LAW  
BY: BEN CRUMP

Attorneys for Plaintiffs

PRYOR CASHMAN LLP  
Attorneys for Defendants  
BY: ILENE SUSAN FARKAS  
DONALD S. ZAKARIN  
ANDREW MARK GOLDSMITH  
BRIAN MAIDA

1 (In robing room)

2 THE COURT: First thing's first. The jury is almost  
3 ready. The panel is almost ready to come up. So I thought  
4 that we'd accumulated a questions that you might want answers  
5 to and that don't require the jury. That's why I asked you in.

6 For example, the splitting of the closing argument,  
7 taking last thing first, I have no objection in principle. In  
8 civil cases, the practice here is usually plaintiff, defendant,  
9 plaintiff. It's really the same as the criminal system. So  
10 this would really mean that she takes the closing argument, you  
11 take the opening closing argument.

12 MR. FRANK: I understand.

13 THE COURT: I have no objection to that. Do you?

14 MS. FARKAS: I don't know that it matters, but it  
15 actually might. I think their proposal was not that Mr. Frank  
16 do the second closing. It was Mr. Crump.

17 Our concern -- so to the extent that they want one  
18 person to do part one and another person to do the closing  
19 closing, so to speak, I might not typically have any care  
20 about.

21 We have real concerns in this case though about the  
22 type of closing remarks that Mr. Crump has been brought here to  
23 bring to the jury's attention. Mr. Crump, as far as we can  
24 tell, has had no participation in any of the pretrial  
25 proceedings.

1           He hasn't been in any of the depositions. He only  
2 came into this case on behalf of the plaintiffs when a trial  
3 was originally set in 2020 which, in and of itself, is fine.

4           Since that time, he has held two press conferences  
5 where the complete and sole focus of those press conferences  
6 were to bring race issues into this case about casting  
7 aspersions on our clients, about racial inequality and stealing  
8 from people of color.

9           There are no witnesses in this case on this issue.  
10 There is no evidence in this case on this issue. As your Honor  
11 has pointed out, this is a copyright claim about two songs.

12           And our concern about Mr. Crump's appearance in this  
13 case in general but, particularly that letter to your Honor  
14 where he wants to give, as they put it "closing remarks," we  
15 are very concerned about not only the irrelevant nature of this  
16 type of speech, as well as the fact that there will be zero, as  
17 far as we can tell, foundation for it at trial, but the obvious  
18 prejudice to the jury.

19           So I would love to hear from the plaintiffs if I'm  
20 wrong about that.

21           MS. RICE: Your Honor, we don't have a position as to  
22 what Mr. Crump has to say, other than what our response was to  
23 counsel when they brought the issue up. And that's simply it's  
24 just closing remarks.

25           THE COURT: Why is it preferable, from your

1 standpoint, to have him rather than one of you?

2 MS. RICE: I think that from our perspective, I think  
3 that there's a certain style that we believe connects really  
4 well with the jury. He's demonstrated that style over the  
5 years.

6 So I don't know if it's necessarily substance-based  
7 rather than style-based. If it was substance-based, then it  
8 would be something that either myself or Mr. Frank could do.  
9 It is definitely a style.

10 We don't feel it's going to be offensive or  
11 substantively objectionable simply because his goal is always  
12 really to connect with juries, not necessarily as what they  
13 seem to be claiming, race-based juries.

14 That's not his intent. So he really just wants to  
15 connect with the jury on a very human level. It's something  
16 that he does really well.

17 MS. FARKAS: Your Honor, I would just like to show one  
18 thing that came into our press feed this morning. This is an  
19 AP reporting on the feed. This is Mr. Crump's quote.

20 MR. FRANK: Do you mind sharing that with us as well.

21 MR. ZAKARIN: That's what our concern is, your Honor.

22 THE COURT: I think this summarizes the reasons why I  
23 think it's better for one of you to do it. The final sentence  
24 here: "Ben Crump, a civil rights attorney who represents the  
25 Townsend family but is not involved in the trial, said at a

1 March 31 news conference."

2                 The purpose of the closing argument is it sums up the  
3 trial for the jury. And I think an outsider coming in because  
4 his style is thought to gain some traction is a very doubtful  
5 idea and rather scary in this trial where the effort has been,  
6 in many instances, to get in, in one way or the other, evidence  
7 that I have indicated is inadmissible. So let's do it the  
8 old-fashioned way.

9                 MS. RICE: So, your Honor, does that mean that you  
10 want to limit what's said or you want to limit the speakers?

11                 THE COURT: I assume what will be said is what's usual  
12 to say in the closing argument, and I think the people best  
13 qualified to do that are the two lawyers that have tried the  
14 case, either one of them, as you choose.

15                 I've tried a lot of cases when I was practicing law  
16 for 30 years. There was a theory then that it was a good thing  
17 for the jury to hear the voice and the personality of only one  
18 lead lawyer, but I don't know how much merit there was to it.

19                 MR. ZAKARIN: I still believe that, your Honor.

20                 THE COURT: You see.

21                 MR. ZAKARIN: But that may be because --

22                 THE COURT: He probably doesn't know any more about it  
23 than I do.

24                 MR. ZAKARIN: I would wager less. I would wager I  
25 know considerably less, but I'm old-school.

1                   THE COURT: It was a notion.

2                   Now, one of the other points you wish to raise,  
3 sequestration of witnesses.

4                   MR. FRANK: Yes, your Honor.

5                   THE COURT: Going into it, my expectation would be  
6 that the best way to do it is to physically sequester the  
7 nonparty witnesses and the suggestion that they not be kept  
8 informed about the evidence in the trial I think adopted and  
9 followed.

10                  MR. FRANK: Thank you, your Honor.

11                  MS. RICE: Thank you, your Honor.

12                  THE COURT: If anybody has a different view, I'll hear  
13 you. Among the party witnesses, for clarity, I think they  
14 should be free to discuss the evidence as it comes in but not  
15 with outsiders.

16                  MR. ZAKARIN: Let me just raise one issue on that,  
17 which is the experts. It seems to me that our expert should be  
18 able to be told what their expert has talked about and  
19 testified to so he can meaningfully respond to it. If he's  
20 sequestered, he's not allowed in the courtroom when their  
21 expert testifies. We should be able to talk to him and prepare  
22 him to testify.

23                  THE COURT: I wasn't sure whether the thought was to  
24 apply this to experts or not.

25                  MR. FRANK: It is.

1 MS. RICE: It is, your Honor.

2 MS. FARKAS: It's also compounded just by the fact  
3 that their expert has come up with -- there shouldn't be any  
4 dispute that their expert has come up with entirely new  
5 analyses, entirely new theories, that we just received less  
6 than a week ago. And of course, given --

7 THE COURT: That's all new.

8 MS. FARKAS: They're entirely new.

9 MR. ZAKARIN: Part of that is what we'll be doing this  
10 afternoon.

11 THE COURT: Yes. They relate. That's going to be  
12 your first witness, isn't he?

13 MS. FARKAS: No. He's not planning to come to court,  
14 so the physical sequestration we have no problem with. But in  
15 order for him to respond to the plaintiffs', musicological  
16 evidence, he has to know what that evidence is. And he has to  
17 know what Dr. Stuart's theories are, which we still, sitting  
18 here now, don't know what he's allowed to testify to and what  
19 he's not.

20 MR. ZAKARIN: We're fine with physical sequestration.  
21 We don't have a problem with that. At least with the expert, I  
22 don't see why we shouldn't be able to talk to him about what  
23 Dr. Stewart, their expert, testifies about so that he might  
24 be able to address it.

25 THE COURT: What harm do you see?

1                   MR. FRANK: Ideologically, your Honor, we don't have a  
2 problem with them talking to him. The concern I have was borne  
3 from a very specific incident that occurred in this case. When  
4 our expert was being deposed, Dr. Stewart, at their offices,  
5 Dr. Ferrera was on the line. And he was listening to  
6 everything Dr. Stewart was saying and feeding them questions  
7 via email and text messages.

8                   And it turned into an absolute disaster from the  
9 standpoint of questions being asked and continuity of  
10 questions. What we're trying to avoid for this case is having  
11 Dr. Ferrera, their expert, feeding them questions in real time  
12 to ask. That's why we want him separated and not assisting  
13 them in that manner. That's what we're trying to address.

14                  MR. ZAKARIN: He won't be here today, but for whatever  
15 it's worth, experts usually assist the attorneys in dealing  
16 with other experts, at least in my experience.

17                  MS. FARKAS: And the disaster in the deposition, I  
18 don't know what they're talking about. There was no disaster  
19 that occurred. Experts are obviously allowed to assist in the  
20 preparation of the examination of the other side's witnesses.

21                  All we're talking about is -- Dr. Ferrera will not be  
22 listening in on the trial. He will not be physically here, but  
23 he should be allowed to know what the plaintiffs' case is on  
24 the musicological issues.

25                  Otherwise, how is he going to testify in rebuttal

1 about why and how he disagrees with it or what mistakes  
2 Dr. Stewart has made in his transcriptions or how he  
3 manipulated the transcriptions or how he's comparing two  
4 different parts of songs.

5 He needs has to be able to know what Dr. Stewart is  
6 going to be opining on in order to have an efficient and  
7 effective examination of our expert.

8 THE COURT: In a curious way, the history of discovery  
9 and preparation for this trial promotes paranoia.

10 I think we're safe enough in the traditional way, that  
11 the experts are kept informed about what the people are saying  
12 and that they can speak to other people is going to be all  
13 right.

14 MR. FRANK: Yes, your Honor.

15 THE COURT: If you think something is going really off  
16 the rails that comes to your attention during the trial, let me  
17 know about it and let them know about it.

18 MR. ZAKARIN: Hopefully that will not occur.

19 THE COURT: They really have a bigger right to know  
20 about it because they are the ones that will be held  
21 responsible.

22 MR. FRANK: Yes, your Honor.

23 THE COURT: Were there any other things that you would  
24 like to hear about today?

25 MR. FRANK: If I may, your Honor.

1 THE COURT: Yes.

2 MR. FRANK: The plaintiffs have filed a fifth motion  
3 in limine. As you're aware, why we're meeting today, this  
4 afternoon, is because of Dr. Stewart's, some things that  
5 they're claiming are new.

6 Well, the defendants have done precisely the same  
7 thing with Dr. Ferrera's testimony. We did an exhibit  
8 exchange, and there are new prior art songs that have been  
9 listed that were disclosed for the first time last Monday. So  
10 we've asked that this Court, consistent with what the Court did  
11 with regard to an almost identical motion, they did with  
12 Dr. Stewart's prior art.

13 THE COURT: You are getting to the point, aren't you?

14 MR. FRANK: Yes. We're asking that the new opinions  
15 that were not embodied in the reports, the new songs that are  
16 named, be excluded in the prior art that Dr. Ferrera speaks to.

17 THE COURT: To what degree were they composed after  
18 "Let's Get it on"?

19 MR. FRANK: Several of them were. Two of them -- I  
20 believe two of them, the Mary Wells song. They were before.

21 THE COURT: How can one that's composed after be of  
22 any interest?

23 MS. FARKAS: I will answer that question first, but  
24 they have sort of mischaracterized the situation. Dr. Ferrera,  
25 when he issued his original report, he identified a number of

1 what he considered to be relevant prior art on the chord  
2 progression and on the combination.

3 THE COURT: Didn't I disqualify him from testifying?

4 MS. FARKAS: No. The reason that your Honor  
5 disqualified their expert from opining on prior art was simply  
6 because he didn't do an adequate prior art search. So your  
7 Honor said, well, he can't come into trial when no prior art or  
8 prior art search was done the first time. Our expert, on the  
9 other hand, did do a prior art search and did identify lots of  
10 songs that contained both the chord progression at issue and --

11 THE COURT: Today aren't we talking about seven?

12 MS. FARKAS: No. I'll try and explain. There are two  
13 different types of prior art that we're talking about here that  
14 they seek to exclude. One is the dozens and dozens and dozens  
15 of songs that Dr. Ferrera disclosed three years ago to them  
16 that have the chord progression at issue.

17 And that's just to show that this chord progression is  
18 ubiquitous and to dispel any notion that Ed Sheeran must have  
19 copied from "Let's Get It On" because that was the only one out  
20 there.

21 So whether they came before or after "**Let's Get It On**"  
22 is somewhat relevant, but it's not the completely only relevant  
23 fact because if there were 60 songs that had this chord  
24 progression even after "Let's Get It On" but before **Thinking**  
25 **Out Loud** is still true.

1           THE COURT: The suspense. I'm waiting for you to get  
2 to the point here.

3           MS. FARKAS: And there is also the combination of  
4 songs. These were not disclosed to them last week.

5           THE COURT: So what do you want to happen?

6           MS. FARKAS: All these are doing are supplementing his  
7 prior opinions that were in his report.

8           THE COURT: That's where I thought I came in.

9           MS. FARKAS: Yes. They're all just supplementing his  
10 same opinions.

11          THE COURT: What do you want to happen?

12          MS. FARKAS: We would like Dr. Ferrera to be able to  
13 testify about all of the prior art he found that contains the  
14 combination at issue, most of which -- all of them were  
15 disclosed to them six week ago, six weeks ago.

16          THE COURT: What is the relevance of the ones that  
17 were written after "**Let's Get It On**"?

18          MR. ZAKARIN: The only point on those, your Honor, is  
19 it just goes to show the ubiquity of the chord progression, in  
20 other words, Ed Townsend didn't sue anybody for that chord  
21 progression. They didn't copy "**Let's Get It On**".

22          Not only were they before "Let's Get It On", there  
23 were plenty after **Let's Get It On** and nobody said boo because  
24 it's so commonplace. It is a chord progression that has been  
25 used over and over and over again. That's the point of the --

1 in between **Thinking Out Loud** and "Let's Get It On" nobody made  
2 a claim.

3 THE COURT: Okay. Fine. This point is one that  
4 should be disposed of during a trial, questions of relevance,  
5 admissibility, and so forth. You've done noble work in getting  
6 a good deal of the case tried before we started it in limine,  
7 but I do think there does come a point where enough is enough.

8 MS. FARKAS: Your Honor, if you don't mind, I think it  
9 will be quick. I think that there are certain items that  
10 your Honor has said we'll wait and see how they come up at  
11 trial.

12 THE COURT: May I ask you to speak in reverse. Start  
13 with what you would like to happen.

14 MS. FARKAS: Absolutely. I'm going to give it a try.  
15 I'm concerned about opening statements and what can be said in  
16 opening statements.

17 THE COURT: This is something I didn't really discuss  
18 with you. I don't want any exhibits in opening statements.  
19 The opening statement is supposed to be an overview of the  
20 trial, not the trial itself. So no exhibits.

21 MS. FARKAS: So no demonstratives either?

22 THE COURT: That's what I'm talking about here. Some  
23 of them, I have my doubts about whether they'll ever get into  
24 evidence. I wanted to make that plain first.

25 MR. ZAKARIN: And I assume -- when you said

1 demonstrative, no audio either. Tell the people what the  
2 evidence is going to be, and the audio will come in during  
3 witnesses.

4 THE COURT: I don't think you should do that during  
5 the opening statement, and I don't think you should call  
6 witnesses during the opening statement.

7 MR. ZAKARIN: The second part I understood. I assume  
8 that your Honor doesn't want "Let's Get It On" played and  
9 "Thinking Out Loud" played, just the oral advocacy of what the  
10 evidence will show. I agree.

11 THE COURT: The case at large and the things you want  
12 them to know about the case. Maybe we ought to get them into  
13 the room, and we'll tell them.

14 MS. RICE: Thank you, your Honor.

15 THE COURT: I thought I should give one thought about  
16 Dr. Stewart. I think this afternoon -- there is no point in  
17 going through his credentials. We want to get to the point.

18 If that leaves the questions of what he can say and  
19 what he can't say sort of cloudy in your minds, I think you  
20 would do well to get into his early testimony all of the stuff  
21 that you want that has nothing to do with the record because if  
22 he goes into that, he's very apt to be disqualified by me as a  
23 witness, and it would be a pity for him to take away with him  
24 as he leaves the stuff that was good. So I'd get that in  
25 first.

1 MR. FRANK: Yes, your Honor.

2 THE COURT: It gives you a little safety there.

3 MR. FRANK: Okay.

4 THE COURT: And I would give you a chance to  
5 cross-examine on whatever he had said before he was fired. So  
6 remind me of that.

7 MS. FARKAS: So one question about the process. So  
8 they will put him on the stand, as we just discussed, and you'd  
9 like to hear from us about objections that we have to a  
10 particular demonstrative or a particular line of questioning.

11 THE COURT: You're talking about this afternoon?

12 MR. FRANK: Yes.

13 THE COURT: I think we'll do it this afternoon.

14 MR. ZAKARIN: But if Dr. Stewart testifies this  
15 afternoon to something that we think is objectionable, is  
16 improper, is inconsistent with your Honor's orders, I assume  
17 you would want us to raise that to you at that time.

18 THE COURT: I've given a lot of thought about what's  
19 the best way to handle it, the most useful way. And I think  
20 really the best way is to object and have an offer of proof,  
21 and then we have the classic record for the Court of Appeals  
22 and for me to make the decisions that will take effect  
23 tomorrow.

24 MR. ZAKARIN: That's perfect, your Honor. We thought  
25 that was the right way to do it. I agree totally. Thank you,

1 your Honor.

2 (Continued on next page)

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## AFTERNOON SESSION

2:20 p.m.

(Jury not present)

THE COURT: Please sit down.

It is clear and there is no question that it is a proper function for an expert to identify and disclose those elements of one copyrighted song which are the same as those of another song raising and perhaps determining the issue of copyright infringement.

In this case, comparing the deposit copy of *Let's Get It On* to *Thinking Out Loud* lies well within Dr. Stewart's field. But in this case, there appears to be an attempt to use the unregistered sound recording of *Let's Get It On* made by Mr. Gaye to reinforce and explain the deposit copy of the song and to use material from the unregistered sound recording to fill in gaps in the deposit copy.

Using the sound recording in that way calls for hypothesizing and interpreting beyond the accepted scope of an expert's function or opinion. I have made clear in my first two *in limine* rulings in this case the reasons that the Gaye sound recording cannot be used to reinforce, explain, or be combined with the deposit copy.

The demonstratives that plaintiffs have offered and the statements in Dr. Stewart's recent submission seem to directly challenge these rulings. So I scheduled this hearing

1 to be sure that plaintiffs had the opportunity to support their  
2 propositions in this respect.

3 I think you have the floor, Mr. Frank.

4 MR. FRANK: Yes, your Honor.

5 We would call Dr. Alexander Stewart.

6 ALEXANDER STEWART,

7 called as a witness by the Plaintiffs,

8 having been duly sworn, testified as follows:

9 THE DEPUTY CLERK: Please state your full name and  
10 spell it.

11 THE WITNESS: Alexander Stewart, A-l-e-x-a-n-d-e-r  
12 S-t-e-w-a-r-t.

13 THE DEPUTY CLERK: You may be seated.

14 MR. FRANK: Your Honor, before we commence I just had  
15 one clarification question.

16 THE COURT: Can you make it work?

17 THE WITNESS: It's a little tight.

18 MR. FRANK: I had one question by way of  
19 clarification, your Honor.

20 You directed, if you recall, you had directed that we  
21 could dispense with Dr. Stewart's qualifications when we spoke  
22 in chambers this morning.

23 THE COURT: Yes.

24 MR. FRANK: We're going to do that. What I wanted to  
25 ask your Honor was whether or not you wanted Dr. Stewart to

1 give definitional explanations of musical terms. We can have  
2 him do that as well, or if you would like to just proceed  
3 directly to the analysis, we can do that as well.

4 It's basically up to the court how you would like for  
5 us to proceed.

6 THE COURT: I want you to present anything you want to  
7 present on that topic so I'm sure that I have given it a fair  
8 hearing. There must be a great deal I don't know about it.

9 MR. FRANK: Yes, your Honor.

10 In that case, we would like to start at slide number  
11 six.

12 VOIR DIRE EXAMINATION

13 BY MR. FRANK:

14 Q. Dr. Stewart, if you would, in referring to slide number  
15 six, could you explain for the court some of the musical  
16 fundamentals set forth therein?

17 A. Yes. I have some basic music terms that I define at the  
18 beginning here.

19 Q. Could you explain the principles of rhythm meter and  
20 groupings that you have referenced on this particular slide?

21 A. Yes. So rhythm quite simply is the placement of sounds in  
22 musical time. Meter is the grouping of beats. Most musical  
23 compositions group the beats in twos, threes, and fours, so we  
24 call that the meter. And the meter is indicated by using bar  
25 lines, which are indicated on this slide.

1           So what I've done here is put two measures that are in  
2 groups of two, one, two, one, two, and then two groups in  
3 three, 123, 123, and then two groups of four. So it's a total  
4 of six measures.

5           So if you could play the example I think that helps  
6 make it clear.

7           (Audio played)

8 A. One, two, three, one, two, three, one, two, three, four,  
9 one, two, three, four.

10 Q. Thank you, Dr. Stewart.

11           Could we proceed to the seventh slide. Can you define  
12 for us, Dr. Stewart, what pitch is?

13 A. Pitch is simply the highness or lowness of a sound. We  
14 have symbols that alter the pitch slightly. Sharp raise is a  
15 pitch by a half step, which would be the next nearest higher  
16 note on the keyboard. And in this diagram it would be from F  
17 to F sharp. For example, a flat lower as pitch to the next  
18 nearest key below on the piano such as E to E flat, and the  
19 natural sign cancels out a sharp or a flat.

20 Q. Proceed to slide eight, please.

21           Could you tell us a little bit about the basic musical  
22 fundamentals set forth in number eight?

23 THE COURT: You're referring to these notes as members  
24 of a chord or as being individually played?

25 THE WITNESS: Not yet. I will get to chords, but just

1 starting with the most basic kind of understanding.

2 THE COURT: The most basic key by key?

3 THE WITNESS: Yes. Single notes.

4 THE COURT: Single notes.

5 THE WITNESS: We're talking about melody, which is  
6 basically horizontal, single notes in succession. Then I'm  
7 going to talk about chords in simultaneous sounds that build up  
8 chords. I think it will be clear.

9 Q. If you could explain rhythm for us, Dr. Stewart?

10 A. Well, actually, I think this slide is also talking about  
11 syncopation. Rhythm is the placement of musical sounds.  
12 Sounds in musical time, as I said. Syncopation is rhythmic  
13 displacement. It's putting notes off the regular beat.

14 So in the slide here, I have two notes on the base  
15 drum or the kick that are on the beat, and then three notes  
16 that are off the beat that are syncopated off the beats. So I  
17 think if you played the example, it will be pretty clear that  
18 three notes in red are the syncopated or rhythmically displaced  
19 notes.

20 (Audio played)

21 That is a very strange echo I'm hearing. Makes it  
22 harder to distinguish the rhythm.

23 Q. If you can switch to slide number 10.

24 For tempo, can you tell us what that is, Dr. Stewart?

25 A. OK. Seemed like it was hard to hear what that was, though.

1 Basically I was saying you have the down beat, which I do with  
2 my foot right now, if you can hear it.

3 Q. You're referring --

4 A. Syncopation would be -- just because I think the example  
5 was unclear -- the off beats, the syncopation would be -- would  
6 be the notes that I'm clapping.

7 Q. OK.

8 A. The next line is about tempo because the beats in a piece  
9 of music have a pace or a speed at which they are played by the  
10 musicians, and we measure this in terms of BPM or beats per  
11 minute. A metronome is a device that we musicians use to help  
12 us set the right tempo for different pieces of music.

13           *Thinking Out Loud* is at 79 beats per minute, which is  
14 kind of at the upper end of a ballad tempo. Ballads are  
15 generally 60 to maybe 80 beats per minute. There is no tempo  
16 marking on the deposit copy of *Let's Get It On*.

17           But I want to give a couple of several examples of  
18 different tempos, because they are generally used in different  
19 genres. First let's listen to 80 beats per minute, which is  
20 the pace of *Thinking Out Loud*.

21           (Audio played)

22           One, two, three, four, and so forth.

23           The next line will give us 92 beats per minute, which  
24 is generally the tempo of hip hop. Hip hop is usually maybe 80  
25 to 95 beats per minute. So this is kind of an average tempo,

1 92 beats per minute.

2 (Audio played)

3 MR. FRANK: Hold on one moment. Kim, did you have an  
4 issue with the sound?

5 MS. PASSEY: I was going to ask if we would assist the  
6 witness with the microphone.

7 MR. FRANK: I apologize. I believe you're going to  
8 play the last example?

9 A. No, 92 now. Hip hop tempo.

10 (Audio played)

11 OK. Thank you.

12 And then this last tempo is a faster dance tempo,  
13 often used approximately for many disco songs.

14 (Audio played)

15 So at one -- thanks -- at 120 beats per minute, of  
16 course, that would be two beats per second.

17 Q. If you could flip to slide number 12, please.

18 Can you tell us a little bit about what melody is?

19 A. Melody is a succession of pitches in musical time, and  
20 we'll also be talking about melodic contour and that is the  
21 shape of the melody.

22 So melodies have different shapes. They can go  
23 ascending or up or they can go up and then stay flat or they  
24 can rise and fall and so forth. I think these are graphically  
25 represented here, some of the different melodic shapes. Of

1 course melodies can have more complex shapes than that.

2 Q. Can you explain the scale degrees or pitch sequences?

3 A. Next slide, please.

4 So when we compare different melodies --

5 This seems like it is cutting in and out a lot.

6 Q. I'm sorry. You were saying, Dr. Stewart?

7 A. Yes. So when we compare different melodies, we often  
8 reduce them to a series of introtures, or Arabic numerals, to  
9 identify the different pitches. It's easier for lay people to  
10 understand, and it's also easy to jump back and forth without  
11 worrying about what key something is in.

12 So a perfect corollary is using syllables, which are  
13 called solfege, and singers in the classical idiom generally  
14 learn solfege when they start out. Everybody knows *do re me fa*  
15 *so la ti do*. Excuse my terrible singing.

16 But we can also use numerals to represent those same  
17 pitches. So it would be one, two, three, four, five, six,  
18 seven, eight, and so this is a way to represent the order of  
19 the pitches numerically, which is easy for everyone to  
20 understand, and it carries over regardless of what key the  
21 piece of music is in.

22 Q. Could you speak to scale degrees?

23 Next slide, please. Here is a scale, again, that I  
24 just sort of attempted to sing that has the Arabic numerals or  
25 we call it introtures beneath each of the pitches. It's a

1 C major scale.

2 If you can play that, please.

3 (Audio played)

4 There is an echo that was not intended to be there,

5 I'm not sure why.

6 Q. OK. If you can switch to slide number 14, Dr. Stewart.

7 Can you explain to us scale degrees?

8 A. So here is a simple recognizable melody that I've posted  
9 the scale degrees above the pitches. So you can see how a  
10 pitch sequence would be constituted by taking -- from taking  
11 this melody and reducing it to these numerals.

12 If you can play the familiar song.

13 (Audio played)

14 Q. I'm sorry. The volume is way too high. You're blotting  
15 out the melody.

16 A. That's a little better. The pitch sequence there is one  
17 eight seven five six seven eight one six five. So that  
18 represents the pitches and their sequence in this song quite  
19 clearly.

20 Q. If you could speak to what a key is, Dr. Stewart?

21 A. Next slide, please.

22 So we talk about different keys that pieces of music  
23 that compositions are in, and basically it's referring to a  
24 central tone or keyed note, or tonic, as we call it as  
25 musicologists.

1           And so in the C major scale, the first and the last  
2 notes were Cs, and it provides a sense of resolution or  
3 finality when we reach that top note.

4           To spare you hearing my voice again, I'll jump over to  
5 the piano.

6 Q. What are you about to play?

7 A. I'll play the C major scale, but I'll show how the tonic or  
8 the keynote provides a sense of resolution that it feels like  
9 home base.

10           (Keyboard played)

11           So if we start on C and we go up the scale, and if I  
12 stop on seven, most of us are yearning to hear one last note,  
13 which provides that resolution and indicates -- gives us a  
14 feeling of where the home base is or the keynote or tonic.

15 Q. With respect to key, what C is the deposit copy of  
16 *Let's Get It On*?

17 A. The deposit copy is in the key of E flat major.

18           And if I may continue on, the studio recording of  
19 *Thinking Out Loud* is in D major. These are two keys that are  
20 adjacent to one another, just a half step apart. So they are  
21 the closest keys in terms of their range where they are set.

22 Q. What do you mean when you say in the slide *Let's Get It On*  
23 is transposed to the same key as *Thinking Out Loud* being D  
24 major for ease of comparison?

25           Is that something that you did?

1 A. This is something that all musicologists do when they are  
2 comparing songs. They put them in the same key so that they  
3 can compare them, and this is something that the musicologists  
4 for the other side has also done. And so it is standard  
5 procedure.

6 When you do this, all of the musical relationships  
7 remain the same. Nothing is changed within the composition.  
8 It is still the same piece.

9 Q. If you would, Dr. Stewart, could you explain to the court  
10 what a triad is, a chord?

11 A. Next slide, please.

12 So here we'll talk about the vertical sounds or  
13 simultaneous sounds that create chords and harmonies. Up until  
14 now, speaking about melodies and scale degrees, we were  
15 thinking more horizontally in terms of melody. But now we are  
16 thinking vertically about sounds that are layered on top of  
17 each other or played simultaneously.

18 So one of the basic chords that we have musically is a  
19 triad, three notes built on the first, the third, and the fifth  
20 note of the scale. So in the key of C, C skipping D, going to  
21 E, skipping F, and then to the fifth note of the scale, which  
22 is G.

23 Q. What happens when you add a seventh to the chords?

24 A. Next slide, please.

25 So if you keep adding tones to these basic triads, you

1 would add, continuing to skip a note each time, you would go  
2 from the fifth to the seventh and then the ninth and the  
3 eleventh and all the way to the thirteenth.

4 We're not going to be really dealing with that much, I  
5 don't believe. But it's important to understand that the  
6 seventh is just adding one more tone to the basic triad, and  
7 the seventh doesn't have to be put on the top.

8 One of the important things to understand is that when  
9 you're building these chords, you can build them vertically,  
10 like I did in the first example, row third, fifth, seventh.  
11 But you can also invert them and order them differently. So  
12 the second example there has the seventh on the bottom.

13 I'll play each of them.

14 I don't think the next slide has sounds sound does it?  
15 No.

16 (Keyboard played)

17 Here is the C major seven.

18 If you want to go back one slide, please.

19 With the seventh on top, but you can also put the  
20 seventh on the bottom. To my area, it's a little more  
21 interesting sound when you reorder these pitches.

22 Q. Dr. Stewart, could you speak to the distinction between  
23 major and minor chords?

24 A. Yes.

25 Next slide, please.

1           Yes. So if we have -- we have been talking about  
2 major chords. Minor chords really just one pitch is adjusted  
3 downward by a half step. So the first example here is a D  
4 major triad has a F sharp on the third pitch, and the second  
5 chord is a D minor chord. So it has an F natural. The third  
6 is lower by a half step.

7 Q. Could we hear an example of those two?

8 A. I think there is an example on the -- coming up very soon.  
9 We will come back to that. If there isn't, I'll play it on the  
10 keyboard.

11           But let's go to the next slide.

12 Q. What, if anything, is the significance of the Roman  
13 numerals being utilized in this slide?

14 A. Yes. So both the opposing musicologists and I use Roman  
15 numerals when we are analyzing the harmony. This is a great  
16 way to distinguish the scale degrees or horizontal pitches from  
17 the vertical pitches or the chords, arabic as opposed to Roman  
18 numerals.

19           Quite simply, upper case Roman numerals indicate a  
20 major chord. Lower case Roman numerals indicate a minor chord.  
21 So then we use the same numeration that we did with the scale  
22 degrees. The chord build on the first note of the scale is a  
23 one chord, but it's indicated with a Roman numeral one. The  
24 second chord is a minor chord, and it's two with lower case  
25 Roman numerals. Then we have a chord built on the third degree

1 of the scale. It's also a minor chord indicated by Roman  
2 numeral three, lower case. And then the fourth chord built on  
3 the scale is upper case Roman numerals, indicating four is as a  
4 major chord. And then the next chord is a five chord with an  
5 upper case Roman numeral indicating that five is a major chord.

6 That's really as far as we need to go in terms of  
7 talking about the tunes at issue here because, as you'll see,  
8 they are built on the one chord, the three chord, the four  
9 chord, and the five chord.

10 If you can play this example, though, it will  
11 illustrate the harmonization of the major scale using just  
12 these basic triads.

13 (Audio played)

14 Q. Could you tell us a little bit about the D major scale,  
15 what it is comprised of?

16 A. Yes. Since we're going to be dealing with the songs in the  
17 key of D, it's useful to just take a second and look at the key  
18 of D. We've been in the key of C, which is a user-friendly key  
19 with no sharps and flats, but the key of D has two sharps. And  
20 so it is really the same thing, though. We have one pitch, one  
21 through eight, and on this slide D, the pitch is D are in  
22 green, because they are the keynote or tonic. And so it will  
23 sound just like the C scale except it starts one step higher.

24 So let's hear the D scale, please.

25 (Audio played)

1           Once again, when you get to that seven, it's lead to  
2 the eight, which is why in music, the leading tone, it wants to  
3 resolve to the tonic again.

4 Q. Could you distinguish between major and minor chords as it  
5 relates to harmony?

6 A. I mentioned before we were going to look at major and minor  
7 triads, and we would listen to an example and it would spare  
8 you hearing my piano playing, too.

9           I should note, I'm a saxophone player and not a  
10 pianist or a singer. But like many musicians, I have had some  
11 basic piano training and I use the piano.

12           But anyway, here is the D major cord, which I could  
13 easily play on the keyboard. But let's listen to this example.  
14 The D major with the third as an F sharp, and then D minor with  
15 a third lowered a half step.

16           (Audio played)

17           One other thing, we also have chord symbols here.  
18 I've been talking about Roman numerals. Notice that the Roman  
19 numeral I for one is capital for the major chord and it is a  
20 lower case i for the minor chord. Also using the chord symbol  
21 D, when it doesn't have anything other than the D, it means it  
22 is major. When there is a dash after it, it means it's  
23 D minor.

24 Q. Dr. Stewart, what would happen in the context of using a  
25 minor chord to play a well-known song?

1 A. Well, let's go to the next slide.

2 MS. FARKAS: Your Honor, so just, I don't believe this  
3 slide we've ever seen before. They did produce slides to us  
4 less than a week ago or about a week ago. The slides that they  
5 are using today are in a completely different order, and so I'm  
6 doing my best to figure out what I'm looking at and to see if  
7 it corresponds to what we were given before.

8 This one I do not recognize and I'm not sure what it  
9 is. So if we could just get a proffer of what this is and  
10 whether it relates to either of the melodies at issue in this  
11 case.

12 THE WITNESS: Should I address that?

13 MR. FRANK: Hold on.

14 THE WITNESS: Right.

15 MR. FRANK: Your Honor, if I may respond.

16 We are in the process right now of showing the  
17 building blocks of the music. We are not getting into the  
18 analysis yet. We are not proffering it for having any relation  
19 to the song, just explaining musical theory for the purpose to,  
20 and then we'll hear the musical analysis.

21 (Counsel confer)

22 In fact, the next slide I believe starts the musical  
23 analysis.

24 MS. FARKAS: I just don't see -- I'm concerned they  
25 are giving musicological analysis that has no relationship to

1 the songs in this case, as if to suggest this has some bearing  
2 on things that Dr. Stewart is going to do later, so...

3 THE COURT: Well, I don't think I have any basis for  
4 ruling on what you seem to be saying, which is that this is a  
5 form of surprise.

6 But with respect to what's going to happen later, we  
7 don't usually rule on an evidence point based on some evidence  
8 to be offered later. You leave me adrift.

9 MS. FARKAS: OK. I guess we'll see how they tie it  
10 in.

11 MR. FRANK: Thank you. Dr. Stewart --

12 THE COURT: I think for present purposes, your  
13 objection is denied as inscrutable.

14 BY MR. FRANK:

15 Q. Dr. Stewart, would you proceed, please?

16 A. Yes. So this example takes a familiar song and it changes  
17 one pitch from the major to the minor. And the point of this  
18 is to show that that one alteration does not change the basic  
19 identity of this song. Everyone will still recognize it, what  
20 this song is. And so the pitch that I changed, the third is  
21 changed from a major third to a minor third.

22 So if we could play the example, and I think it will  
23 show my point, and this will be relevant later when we're  
24 talking about the songs at issue.

25 (Audio played)

1 Q. Dr. Stewart, why is that -- to your mind, why is that  
2 significant to show that to the court?

3 A. Because basically the note on the scale degree three has  
4 been lowered a half step, but it is still scaled in degree  
5 three and it would still be analyzed as three in terms of the  
6 ordering of the pitches. So it has not changed the fundamental  
7 composition, as I think evidenced by the fact that most people  
8 recognize what that song is.

9 Q. Flip to the next slide, please.

10 Could you describe what this slide is intended to  
11 depict?

12 THE COURT: Does this point reach any further than to  
13 say that, in any of these short sections, you can make a minor  
14 change to some note without making a difference to the ear?

15 And if so, what's the significance of the proposition?

16 THE WITNESS: Well, the proposition here is that the  
17 note that was changed still remains a three. It's the third  
18 note of the scale, so it was not like just taking some random  
19 note and making it a different note or taking a pitch that is  
20 like five and turning it into six.

21 So in terms of the analysis, it's still the third  
22 degree of the scale, and the fundamental order of the pitches  
23 is not changed and neither is the basic composition. I think  
24 your point is well taken. I don't disagree with that. The  
25 thing is if we changed a different pitch from introture to

1 another, from one scale degree to another, it would also change  
2 the analysis because then the pitch sequence would change as  
3 well.

4 THE COURT: I'm trying to perceive whether the point  
5 you're making is simply an academic one or is an audible one.

6 THE WITNESS: Well, I think we can all hear that the  
7 *Happy Birthday* with the altered pitch sounded more like sad  
8 birthday with the pitch lowered. So it's audible as sounding  
9 different, but I don't think if you took -- if *Happy Birthday*  
10 was still under copyright -- and I guess it isn't -- you  
11 couldn't have a defense that, oh, this is no longer *Happy*  
12 *Birthday* because that note is different. It's still the same  
13 composition and I don't think you would succeed in your defense  
14 saying it is no longer *Happy Birthday*.

15 THE COURT: Well, we have a concept in the law called  
16 immateriality. And isn't this, in effect, saying the change is  
17 immaterial?

18 THE WITNESS: I think so, and that actually is going  
19 to be a point that I make later on when I'm comparing the two  
20 songs at issue in this case.

21 MR. FRANK: May I, your Honor?

22 MS. FARKAS: I have an objection to this next slide.  
23 This slide is from the report of our expert, Dr. Ferrara, from  
24 2015, at a time before your rulings on the deposit copy. And  
25 so this, the section of this report is talking about the LGO

1 sound recording which is no longer at issue in this case, so  
2 this slide should not be used by Dr. Stewart.

3 MR. FRANK: Well, go back to that slide, please.

4 MS. FARKAS: You'll see where it says in the paragraph  
5 it says --

6 THE COURT: There may be something to that, but I'll  
7 let him develop it.

8 MS. FARKAS: OK. I'll just note it refers to the piano  
9 parts in both songs, which we know is not in the deposit copy.

10 MR. FRANK: How do you know the deposit copy couldn't  
11 be played on the piano and that is what he's referring to?

12 MS. FARKAS: He's discussing transcriptions of the  
13 sound recording. I don't see how you can actually dispute me  
14 on this. You might think you can use it, but it clearly is  
15 what it is.

16 It talks about his transcriptions. We know what his  
17 transcriptions were. We know that is no longer in this case.  
18 If you continue to insist on putting it in the case, I'll  
19 continue to object.

20 MR. FRANK: He's only speaking to the harmonic rhythm.  
21 He's not speaking to anything in the sound recording. There is  
22 no reference to the sound recording.

23 MS. FARKAS: You do not need Dr. Ferrara's report from  
24 2015 to show what the chord progression is.

25 MR. FRANK: What's wrong with the report?

1                   You're attempting to put it -- you guys could have put  
2 in Dr. Stewart's report. We are allowed to speak to the -- we  
3 are allowed to speak to the analysis that Dr. Ferrara did, are  
4 we not?

5                   MS. FARKAS: It was of the sound recording that is no  
6 longer in this case.

7                   MR. FRANK: I don't see it saying sound recording on  
8 there --

9                   MS. FARKAS: Would you like to --

10                  MR. FRANK: -- or harmony.

11                  This is harmonic progression, which is admissible.

12                  MS. FARKAS: Due to the improvisational nature of some  
13 of the instrumental parts, particularly in the piano part in  
14 both songs, the chord progressions have numerous variations  
15 which I have not transcribed given the preliminary status of  
16 this analysis.

17                  You have cited the Ferrara report March 2015.  
18 Presumably you have read the Ferrara report from March 2015 and  
19 you know exactly what it is based upon.

20                  MR. FRANK: That's why I deal specifically with  
21 harmonic progression, which has been admitted, and I believe it  
22 should be -- Dr. Stewart should be allowed to opine on that  
23 issue because there is no dispute that that is what this slide  
24 is intended to encompass.

25                  In fact, Dr. Ferrara himself says he didn't bother to

1 transcribe the instrumentals in the sound recordings, so I'm  
2 not sure how that is relevant at all.

3 MS. FARKAS: Your Honor, it's pretty simple. I'm not  
4 sure why Mr. Frank is fighting me so much on this. This report  
5 refers to transcriptions of the sound recording of *Let's Get It*  
6 *On* prior to your Honor's 2020 rulings, and so there is no  
7 reason for plaintiffs to need to refer to this slide or this  
8 report when there are plenty of times post your decision when  
9 the parties have defined the chord progressions that are at  
10 issue.

11 I have an expert here who can testify. They don't  
12 need to walk him through slides. He can ask him a proper  
13 question and he can answer it.

14 THE COURT: I think I'll let him proceed with this  
15 analysis until I'm clear and the record is clear where it  
16 leads. I think that's the point at which these objections  
17 should be referred to by hindsight.

18 MS. FARKAS: OK, your Honor. Thank you.

19 BY MR. FRANK:

20 Q. What was -- if you could explain the harmony analysis that  
21 you did with respect to Dr. Ferrara's report about the two  
22 songs, Dr. Stewart?

23 A. Yes. So the basic harmony is given here, and as I said  
24 before, we don't disagree basically. The harmony is the one  
25 chord to the three to the four to the five. Dr. Ferrara has an

1 error here. I think it's just an innocent typo for the second  
2 chord. He has two, seven, and it really should be three, as we  
3 all know.

4 But what I was also interested in is, you know,  
5 because the defense has produced this realization of the  
6 deposit copy, they produced a recording of it that also has  
7 piano in it, and that's something that I wanted to address.  
8 Because they did take the deposit copy and have it -- the notes  
9 on the deposit copy sounded by a piano.

10 And I want to talk a little bit about that when we get  
11 to their recording. I think this is a good way to introduce  
12 that topic as well.

13 Q. OK.

14 THE COURT: Well, what is the significance for this  
15 case?

16 THE WITNESS: I think that will become clear when we  
17 get to -- we're going to listen to the entire recording that  
18 the defense produced of the deposit copy of *Let's Get It On*.  
19 And I wanted to point out, you know, they had to make certain  
20 choices of how they were going to realize it, what instruments  
21 they would use. And then, you know, when it says the chord  
22 progression on the deposit copy, you know, it's just a chord  
23 symbol.

24 So there is a lot of choices of how you're going to  
25 realize that chord symbol when you make this recording, so they

1 had to make certain choices when they did that. And I think  
2 that I have a fairly important point to make about the choices  
3 they made in producing that sound version of the deposit copy.  
4 So it's referring really to their -- their --

5 THE COURT: What if we treat the sound recording as  
6 nonexistent?

7 What happens to this argument?

8 THE WITNESS: Well, they created an audio file that  
9 purports to be a realization of the deposit copy, I presume  
10 because they want people to be able to hear what is on the  
11 deposit copy. I had a teacher who used to say, if I was  
12 burying my face in my part too far and not really listening to  
13 what is going on, he would say, That's not the music. The  
14 music is not on the paper. The music is the sound. And that's  
15 really stuck with me as a profound kind of idea.

16 So I think they quite rightly produced a way for  
17 people to hear what is on the deposit copy. I think that is a  
18 very valid thing to do what they did, and I think we're going  
19 to use that, too, as representative of what is on the deposit  
20 copy. So it won't only be they that use it, but we will also.

21 But I do want to show something that I think is bit  
22 problematic about the way they decided to do that in terms of  
23 the piano part.

24 THE COURT: But you're basically using the sound  
25 recording to supplement the deposit copy, aren't you?

1                   THE WITNESS: Well, they produced it, not me. And I  
2 think the point here is -- and I would agree that they put not  
3 a single note in that recording. It was computer-generated.  
4 It wasn't performed by a human.

5                   So the computer was completely objective. The  
6 computer didn't decide to do something here or there. A human  
7 being, I guess, programmed it, but there is not one note on  
8 their production of this that is not in the deposit copy.  
9 Every single note in the deposit copy is indicated there.

10                  THE COURT: In the same place?

11                  THE WITNESS: Pardon?

12                  THE COURT: Are they all in the same place that they  
13 were in the deposit copy?

14                  THE WITNESS: Yes, they are.

15                  MR. FRANK: It's a performance of the deposit copy.

16                  THE COURT: I think I'll leave that for cross.

17                  MR. FRANK: Thank you, your Honor.

18 BY MR. FRANK:

19 Q. What was your conclusion as it relates to the similarities  
20 and harmony between the two songs, Dr. Stewart?

21 A. Apart from that typo there, I think we agree that the basic  
22 harmonies are correct. So I would like to talk a little bit  
23 more about the basic harmonies.

24                  I think the next slide will do that.

25                  So the basic harmony, as analyzed by both of us, is

1 one major to three minor to four major to five seven in *Let's*  
2 *Get It On*, and one major then one major with three in the bass.  
3 Anyway, the sound may be a little obtuse for nonmusicians, but  
4 I think when you hear these realizations of the chords, it will  
5 make sense.

6 I would like if you could play the example of the  
7 basic harmony from each song.

8 That sounds more like John Cage. Did we lose our  
9 sound?

10 I could just play it on the piano.

11 So the first chord in *Let's Get It On* is...

12 (Keyboard played)

13 So that is exactly what is indicated there in that  
14 transcription. In *Thinking Out Loud*, it's...

15 (Keyboard played)

16 Let me play that one more time. Maybe the next slide  
17 will play. Let's try that. It's the same thing.

18 No, the next slide. Yes, this one.

19 No, not playing either?

20 MS. PASSEY: It's no longer a video.

21 THE WITNESS: OK, not a problem.

22 Once again, that's OK. Go on. So the notes that are  
23 circled in green, the only notes that are different between  
24 *Thinking Out Loud* and *Let's Get It On*. So there are two  
25 pitches, two notes in *Let's Get It On* that are circled in green

1 that are not heard in *Thinking Out Loud*. This one pitch on the  
2 second chord, that's different in *Thinking Out Loud*. And one  
3 additional pitch on the fourth chord in *Let's Get It On*, so...

4 Q. Do those different notes cause any appreciable difference  
5 between the two songs?

6 A. I'll let you be the judge of how different these sound.

7 (Keyboard played)

8 That's *Let's Get It On*.

9 *Thinking Out Loud*.

10 (Keyboard played)

11 To my ear, they sound almost identical.

12 Q. If you could go to the slide 26, please.

13 A. One last point on that slide.

14 Q. Go back, please.

15 A. I'm sorry. Different note in the second chord of *Thinking*  
16 *Out Loud* is not present during the entire 21, 24 seconds of  
17 *Thinking Out Loud*. Mr. Sheeran never plays that on guitar, so  
18 essentially the first 24 seconds of *Thinking Out Loud* doesn't  
19 even have that difference.

20 And also importantly, in many spots in his recording  
21 he does play that initial note that is circled. That  
22 additional note on the five seven chord in *Let's Get It On*, he  
23 often plays that in *Thinking Out Loud*, too.

24 Q. If we could switch to slide number 26, please.

25 What have you done here, Dr. Stewart?

1 A. Well, if this would play, it's really still the same thing.

2 (Audio played)

3 Q. I can hear it a little bit.

4 A. It's very faint. I think, though, I've covered it by, you  
5 know, playing it on the keyboard. We can move on.

6 There it is. Since it is working now, could you play  
7 it one more time, please. And maybe if you can boost the  
8 volume a little bit. The point is to listen to these and  
9 appreciate whether the difference is significance or not, I  
10 think.

11 (Audio played)

12 OK. I guess that's the most volume we can get.

13 Q. Can you explain for the court what harmonic, the concept of  
14 harmonic rhythm is?

15 A. Sure. If we can go to the next slides.

16 So literally harmonic rhythm is the rhythmic pattern  
17 of the harmonic progression. So it is the rate at which the  
18 chords are changed or the rate where the chords are placed in  
19 musical time. So the harmonic rhythm of the chord progressions  
20 that we have been listening to is not quite as simple as what  
21 we've just been hearing. There is some rhythmic interest that  
22 is really important to each of these chord progressions.

23 Q. Can you insert the concept of harmonic rhythm into the two  
24 songs that we're talking about?

25 A. Yes. On the next slide, please.

1           So in *Let's Get It On* and in *Thinking Out Loud*, the  
2 second and the fourth chords are anticipated, meaning that they  
3 are played slightly ahead of the regular beat. So what we were  
4 just hearing the chords were placed squarely on the beat. One,  
5 two, three, four, one, two, three, four.

6           Now, the second chord is anticipated so it's one, two,  
7 three, four, one, two, three, four. That adds a lot of  
8 rhythmic interest.

9 Q. Have you provided a sample?

10 A. Yes. If we can play the example, please.

11           (Audio played)

12           MS. PASSEY: Excuse me. Did the IT guy mute the  
13 audio, the system?

14           THE DEPUTY CLERK: No.

15           MS. PASSEY: Now it's not playing through the system.

16           THE DEPUTY CLERK: I'll call up.

17           THE WITNESS: Well, in the interest of time, this is  
18 what -- I kind of like it when the computer plays the examples.  
19 It saves me from moving over here, but also it's completely  
20 impartial. There is no performance element that I can be  
21 interjecting.

22           But the harmonic rhythm now, instead of...

23           (Keyboard played)

24           Now the second and fourth chords are anticipated.

25           (Keyboard played)

1           So you can hear that they are played a little earlier  
2 and that gives it some rhythmic proceed pulse. It adds  
3 significantly to the effect of these chords.

4           In *Thinking Out Loud*, it's...

5           (Keyboard played)

6           So, again, the second and fourth chords are played  
7 anticipated. They are placed ahead of the beat so that is the  
8 harmonic rhythm that characterizes both of these songs.

9 Q. Speak a little more to the harmonic analysis that is at  
10 issue on the defendant's side, Dr. Ferrara's harmonic analysis.

11 A. Yes. If we can go to the next slide.

12           Here, we really could use the sound to be played in  
13 the courtroom.

14           Dr. Ferrara provided a pretty comprehensive analysis  
15 of the variations in *Thinking Out Loud*. They go beyond the  
16 basic harmony that we've been talking about, one, three, four,  
17 five, and he provided five different variations that he calls  
18 TOL number one, TOL number two, TOL number three, TOL number  
19 four, and number five. And he explains where they occur at  
20 different places in *Thinking Out Loud*.

21           And so it's useful to -- again, now, compare this  
22 basic harmony from the deposit copy of *Let's Get It On* with  
23 these variations that Dr. Ferrara has identified. And on the  
24 next slide, it will be hard to hear, I think, but you'll be  
25 able to hear the expression of his analysis in realtime in

1 terms of what it sounds like.

2 (Audio played)

3 TOL number one.

4 TOL number two.

5 TOL number three.

6 Number four.

7 Number five.

8 And then finally *Let's Get It On* again, so there you  
9 have it. I think these different variations don't sound a lot  
10 different from one another, or from what we hear in *Let's Get*  
11 *It On*, but everybody is able to hear for themselves whether  
12 they would agree with that or not.

13 MS. FARKAS: So, your Honor, a few objections on this.

14 First of all, his conclusions on this are  
15 inappropriate. How they sound is not something that he should  
16 be opining upon, and I would also like to just note that he is  
17 testifying about items that are evidence that are not in this  
18 case at this point in the case.

19 You know, when he testifies that this is plaintiff's  
20 case and or to the extent that they are relying upon evidence  
21 that is defendant's, I want to note that for the court. I'm  
22 not asking for a ruling at this point, but it is something that  
23 we are aware of in this case.

24 BY MR. FRANK:

25 Q. Go to slide 32, please. Identify what this is,

1 Dr. Stewart.

2 A. This is the defendant copy of *Let's Get It On*, and it  
3 starts with the application two pages that were filed with the  
4 U.S. Copyright office at the time of registration.

5 And then the next two pages, if we can forward --

6 Q. Next slide.

7 A. -- are pages one and two of the deposit copy.

8 Q. Scroll through the deposit copy if you would, Kim.

9 A. Pages three and four, and page five and then six has some  
10 notations on it, probably made by the U.S. Copyright office,  
11 but they are not really relevant, I don't believe, to anything.

12 Q. Do you have a sample of the performance of the deposit copy  
13 consistent with -- I'm sorry.

14 Do you have samples of the deposit copy?

15 A. I'm sorry, what?

16 Q. Do you have samples of the performance of the deposit copy,  
17 slide 37?

18 A. Let's move on. OK.

19 Q. Can you identify what these are?

20 A. Yes. So there is one notational factor in the deposit copy  
21 that Dr. Ferrara has attempted to make into something very  
22 significant. As we'll see first, what I want to show is that  
23 the deposit copy sounds exactly the same.

24 If you play it at 164 beats per minute, the way that  
25 it is notated in the deposit copy, then you cut the note values

1 in half and the tempo in half, they still sound exactly the  
2 same. There is absolutely no difference in the way they sound  
3 at all, so it's purely a notational thing.

4 So let's listen to these and compare them.

5 (Audio played)

6 And now --

7 BY MR. FRANK:

8 Q. For the record, Dr. Stewart, what was just played, that  
9 wasn't a sample that you prepared. Where did that come from?

10 A. It's from the deposit copy that --

11 Q. Who prepared the audio file?

12 A. Well, when I put these into Sibelius to use them for music  
13 examples, then they also can be played back as MIDI files,  
14 Musical Instrument Digital Interface. So the notation can be  
15 played back by the computer --

16 Q. I see.

17 A. -- which I think is a very objective way to hear back these  
18 examples without any element of human interference, if you  
19 will.

20 THE COURT: I'm told that the plaintiffs are having  
21 some trouble with the audio and would like a short recess to  
22 get it fixed; is that right?

23 I'm also told they think they can do it in about  
24 ten minutes, so let's do that.

25 MS. RICE: Thank you, your Honor.

1 MR. FRANK: Thank you, your Honor.

2 (Recess)

3 THE COURT: You can resume whenever you want, and  
4 everybody who wants to sit can sit.

5 MR. FRANK: Thank you for that, your Honor.

6 BY MR. FRANK:

7 Q. If we can revisit slide number 37. May it please the  
8 court.

9 Dr. Stewart, could you proceed with slide number 37  
10 and what you were saying when we broke?

11 A. Yes. Thank you. I just would like everybody to be able to  
12 hear what it sounds like when you do this, take the deposit  
13 copy, and this is the first phrase from the deposit copy, I've  
14 been really trying baby, and you take the tempo and cut it in  
15 half, but also cut in half the value of the notes.

16 So listen to these two iterations or realizations of  
17 the deposit copy and see if you detect any difference.

18 (Audio played)

19 Q. Dr. Stewart, if I may request, why is it significant that  
20 they sound the same at different speeds?

21 A. Well, for one thing, the opposing musicologist tried to  
22 exaggerate or manufacture a difference here that doesn't exist  
23 because they sound exactly the same when you do this procedure.

24 If we can go to the next slide, I think --

25 MS. FARKAS: Just before you speak, I'm going to have

1 a continuing objection to Dr. Stewart characterizing what  
2 Dr. Ferrara has yet to say in this case. It is not evidence in  
3 this case what Dr. Ferrara has not yet testified to. So we're  
4 going have a continuing objection to plaintiff's putting in  
5 anticipations of Dr. Ferrara's testimony on their case in  
6 chief.

7 MR. FRANK: Respectfully, I don't think it's an  
8 anticipation. You're required to proffer an affidavit or  
9 declaration of Dr. Ferrara which explicitly says what his  
10 testimony is going to be. That is in the record and stipulated  
11 to and Dr. Stewart is speaking to that.

12 MS. FARKAS: That's not evidence in this case.

13 THE COURT: You have a continuing objection to that,  
14 Ms. Farkas, and I will continue to allow him to do it because  
15 what we're trying to find out is the points at which the two  
16 experts differ and how it is that one supports his conclusions.

17 So I'm going to allow him to do what he does while  
18 there is no jury here.

19 MR. FRANK: Thank you.

20 BY MR. FRANK:

21 Q. Dr. Stewart, if you could explain, you mentioned that  
22 Dr. Ferrara had manufactured a difference.

23 Can you expound upon that, please?

24 A. Yes. In this report of his dated from January 2018, he  
25 makes it sound as if there are actually six chords in *Let's Get*

1     *It On.*

2     Q.   Are there six chords in *Let's Get It On*?

3     A.   No, there are only four. And he talks about two chords in  
4       bar one, one chord in bar two, two chords in bar three, one  
5       chord in bar four. And then he talks about this being a  
6       significant difference in *Thinking Out Loud*. The harmonic  
7       rhythm is two bars, not four bars.

8               Anyway, even he acknowledges in his last sentence here  
9       the point I'm making, which is if you cut in time the value of  
10      the notes and the tempo, the harmonic rhythm between these two  
11      chord progressions remain the same. He's basically  
12      acknowledging what I'm saying, that this is not a difference.

13     Q.   What impact does the fact that there are only four chords  
14      in *Let's Get It On* impact the harmonic rhythm analysis?

15     A.   Well, simply that he's trying -- he's trying to make it  
16      sound like there are six chords because he's talking about two  
17      in bar one, one in bar two, two in bar three, and one in bar  
18      four, but we know -- I mean, I think in the next slide we're  
19      going to look at the deposit copy again and we'll see there are  
20      only four chords.

21     Q.   If we can proceed to the next slide, please.

22     A.   I guess it's the one after this.

23               This is just expounding a little bit further on --  
24      this is taken from my report. I don't think we need to go into  
25      all this verbiage. It's basically just repeating what I said

1 in my report about it being the same thing no matter how it is  
2 notated.

3 THE COURT: Your point is that cutting it in half does  
4 not destroy the similarity between the two songs?

5 THE WITNESS: All the relationships remain exactly the  
6 same in a way. It's very much like putting the two songs in  
7 the same key, which is something we all do when we're  
8 comparing.

9 The next slide will show there are only four chords in  
10 *Let's Get It On*. The first four chords are circled in green  
11 and then the next four I did in blue, just so you can see it  
12 quickly, and then the next four I did in green again, the next  
13 four in blue, the next four in green.

14 It's very clear that we're just talking about four  
15 chords in *Let's Get It On*.

16 Q. Do you have an audio sample?

17 A. It's just notated a little differently. No, I don't think  
18 we need to play that now.

19 MS. FARKAS: Well, I mean, if you're going to play it  
20 for the jury, we would like to hear it.

21 A. No, we don't need to play that.

22 Q. Could you explain to the court what you've done in this  
23 slide number 41, what this analysis means?

24 A. It's just another way of depicting what I was just talking  
25 about. So if we count the harmonic rhythm with the slower

1 tempo -- one, two, three, four -- and then we double it up --  
2 one, two, three, four -- you'll hear that, if I clap the  
3 harmonic rhythm, it remains exactly the same.

4 One, two, three, four. One, two, three, four. One,  
5 two, three, four. One, two, three four. One, two, three,  
6 four. One, two, three, four. One, two, three, four. One,  
7 two, three, four.

8 So my clapping remained the same throughout even  
9 though the tempo was altered, so this is a way of demonstrating  
10 that the harmonic rhythm remains the same.

11 Q. Could you speak a little bit to the concept of musical  
12 architecture?

13 A. One other thing on that slide, I guess I should point out.  
14 The reason why there is two examples here is because, once  
15 again, during the first 24 seconds of *Thinking Out Loud*, the  
16 pitch D is not present in any of the transcriptions or even in  
17 the sheet music of *Thinking Out Loud*. So it's really  
18 essentially an F sharp minor chord. The second chord for the  
19 first 24 seconds has no difference basically from the second  
20 chord in *Thinking Out Loud*.

21 Yes, we can go on.

22 Q. If you could speak to musical structure or architecture?

23 A. Sure. Most musical compositions are built from sections of  
24 music that repeat, so composers don't generally just compose  
25 new material all the time. Repetition is an important musical

1 building block.

2 Q. Some of these terms speak for themselves, such as intro or  
3 outro, but could you describe for the court what a precourse or  
4 a bridge or interlude is?

5 A. Sure. A lot of contemporary pop songs have a little more  
6 complicated structure. Not only that, before that existed as  
7 well, but an intro is an introductory section. It is then  
8 often after the verse, before the chorus is heard, there is a  
9 prechorus.

10 And sometimes songs have bridges that are sort of a  
11 section of the song that leads to a new -- takes you away from  
12 the song for -- takes a brief detour and then you go back to  
13 the song itself.

14 Interludes, which are sections in the middle of a  
15 piece that might have a guitar solo or some other something  
16 else that's different than is happening in the rest of the  
17 song.

18 And then finally the outro would be the ending.

19 The next slide will kind of walk through -- we'll get  
20 a roadmap of the two songs as provided by the musicologists for  
21 the defense. I don't have any argument with it. I think it's  
22 useful for us all to understand what we're talking about is, we  
23 compare these two songs, how they are structured, and so we're  
24 going to be referring to these structures for the next few  
25 days, I would presume.

1                   The only thing I've done here is added some times to  
2 the computer-generated recording of the deposit copy that was  
3 produced by the defense.

4 Q. For the record, the times that you're referencing on this  
5 particular slide, those are, for instance, chorus -- that is  
6 where the chorus starts when it says 24?

7 A. Yes, 24 seconds in.

8 Q. OK.

9 A. So if we listen to the next slide, it will give us *Let's*  
10 *Get It On*. The deposit copy recording generated, I presume, by  
11 some kind of artificial intelligence or computer by the defense  
12 in order to represent the sounds on the deposit copy, I don't  
13 really have a problem with. I don't think there are notes on  
14 this that are not present on the deposit copy, but we'll come  
15 back to this in a minute.

16                   Let's listen to this.

17                   (Audio played)

18                   Bridge. Apparently there's a bit of a glitch there,  
19 but...

20 Q. For the record, that was a computer-generated audio  
21 recording?

22 A. Yeah. I'm not sure how they produced that, but it doesn't  
23 sound like a human singing it.

24 Q. OK. Could you explain slide 45?

25 A. Yeah. So obviously the vocal quality is one thing in that

1 recording, but I wanted to point out something of their choice  
2 in terms of representing the chords that are in the deposit  
3 copy.

4 Now, they did pick all of the notes that are indicated  
5 by the chord symbols, but they did something that kind of makes  
6 me shudder. It's not something that any pianist with any  
7 competence would do. That's basically --

8 If I may move to the piano again for a second.

9 So the first two chords are in root position. In  
10 fact, all of the chords are in root position, so they go...

11 (Keyboard played)

12 But this chord just -- the voice leading is all wrong  
13 and it just jarring to me as a musician. That repeats  
14 throughout almost the entire song, and I don't know why they  
15 made that choice. Maybe the person who made this was not a  
16 musician or not a pianist, obviously. But it really makes the  
17 composition, as embodied in the deposit copy, sound -- well,  
18 use your own adjective.

19 Let's play the examples. Please go back. So the  
20 chords in defendant's rendition of the deposit copy are what  
21 you hear here.

22 (Audio played)

23 That last chord, the fourth one.

24 Keep going.

25 (Audio played)

1           So that was the choice that was made. I'm not sure  
2 why. Not for musical reasons. But here are some other  
3 variations that could have been chosen that remain absolutely  
4 faithful to the deposit copy. There is not a single pitch or  
5 note that is not indicated by the notation in the deposit copy.

6           So listen to these possibilities out of many.

7           (Audio played)

8           So ...

9           MS. FARKAS: Your Honor, just to the extent that he is  
10 now including bass notes in these new performances that I don't  
11 think we have seen before, I believe this entire piece is new.  
12 I don't think -- maybe Mr. Frank can tell me if I'm wrong.

13           I don't think we have seen this before. And what  
14 Dr. Stewart is doing is, once again, trying to put a bassline  
15 into the deposit copy when none exists. So I can't say right  
16 now, since we're seeing this for the first time, whether I'm  
17 going to object or agree to his own choices of variations that  
18 perhaps could have been in there. I guess we'll deal with that  
19 if this slide gets in at all.

20           But the notation of a bassline, which are those single  
21 notes that he has now put and presumably playing underneath the  
22 new chords, that he is presenting for the first time on the  
23 first day of trial six years into this case, is a little  
24 distressing and we object.

25           MR. FRANK: I don't think Dr. Stewart suggested that

1 the bassline on the proposed alternates is part of the deposit  
2 copy. I think he was just making a point about the choices  
3 made for the audio recording.

4 MS. FARKAS: I think Mr. Frank just proved my point,  
5 it's not part of the deposit copy. It should not be on here  
6 and should not be being played while these chords are being  
7 played.

8 MR. FRANK: I think his point is --

9 MS. FARKAS: He wants to present chords he thinks are  
10 substitutes, or whatever word he wants to use, for what has  
11 actually been depicted as in the deposit copy. I think that's  
12 one thing.

13 MR. FRANK: I think Ms. Farkas just made my point.  
14 The notes -- the point that Dr. Stewart is making is that the  
15 choices that they made in the audio recording that they created  
16 have additional notes that aren't embodied in the deposit copy  
17 either.

18 MS. FARKAS: We don't notate or have in the rendition  
19 of the deposit copy a bassline.

20 MR. FRANK: You're missing the point about the  
21 additional notes in the first example.

22 MS. FARKAS: No. Look, Dr. Stewart is free to  
23 testify --

24 MR. FRANK: That was OK because that one is altered by  
25 you guys?

1 MS. FARKAS: I'm not done.

2 MR. FRANK: But this one isn't OK. Let's see.

3 MS. FARKAS: Let's not interrupt each other, OK?

4 MR. FRANK: Sure.

5 MS. FARKAS: We're not talking about -- if he wants to  
6 present, you know, alternate chords that he thinks exist in the  
7 deposit copy, we'll deal with that on cross. Although I would  
8 like advanced notice and not having this for the first time  
9 now.

10 But it's the bassline. Let's just focus on the  
11 bassline, which it's the second line. You see how the first  
12 line only has the treble clef, and then these few possible  
13 variations he is now presenting have not only the treble -- I  
14 can walk up and point if your Honor would like. It's that  
15 bottom line, sort of looks like a nine at the beginning, if you  
16 know what a bass clef is. Those notes, that is a bassline.

17 There is no bassline in the deposit copy. Your Honor  
18 has held that multiple times. You have also held multiple  
19 times he is not to testify about or present to the jury a  
20 bassline. That's it.

21 MR. FRANK: Dr. Stewart.

22 THE COURT: It would be more effective if you do it on  
23 cross and ask him where the bassline came from. The need to  
24 compress a whole legal argument into one objection is almost  
25 impossible to do. I frequently made the point that you're

1 referring to that the bassline is not to be used as a source of  
2 reinforcement or explanation or combination with the deposit  
3 copy. I would expect you to ask him how he reconciles that.

4 While you're thinking of it, how do you reconcile it?

5 THE WITNESS: Yes. Thank you for asking that, because  
6 as I said in this, I think the most important point -- none of  
7 these notes, not one, is not indicated in the deposit copy  
8 because that's not really a bassline. It's just the root note  
9 of each chord. The root note, and the root notes are on the  
10 bottom of each of their chords also.

11 So I've just added a root note in the bass clef. A  
12 bassline might have a lot more notes than just these basic  
13 roots.

14 THE COURT: Where do you find the root note?

15 THE WITNESS: So on a D major chord, the root is D.  
16 So I have a D on the bottom of that chord, as they do too.  
17 I've only put the D an octave lower. I don't characterize this  
18 as the bassline. It's just the roots of each chord being  
19 sounded at the same time as the chord.

20 THE COURT: And you're taking that out of the  
21 designation in the deposit copy?

22 THE WITNESS: Absolutely. 100 percent. It's no  
23 reference at all to any sound recording. It's 100 percent out  
24 of the deposit copy.

25 MS. FARKAS: Your Honor, this is the exact argument

1 that he made and plaintiffs made and you've rejected in your  
2 prior orders. They argued previously, and your Honor has  
3 already ruled, they argued that things, that these things are  
4 implied in the deposit copy. They said a bassline is implied  
5 in the deposit copy because it's the lowest note or they came  
6 up.

7 Your Honor noted at the time that you rejected that  
8 argument, that there is more than one way to -- more than one  
9 way to perform a bassline, more than one way to do something.  
10 And if it's not expressed in the deposit copy, it is not part  
11 of this case.

12 And, once again, they are trying to confuse the jury  
13 and get it in.

14 THE COURT: Would you point to where it is in the  
15 deposit copy?

16 THE WITNESS: Yes.

17 So if you go back one slide, please. Two slides. One  
18 more, please. One more. One more.

19 There. So there is the first page of the deposit  
20 copy. Circled in green is the chord symbol E flat. The root  
21 note of E flat is E flat major is E flat.

22 So in their rendition of *Let's Get It On*, they also  
23 have an E flat on the bottom of the chord. The next chord is G  
24 line. Of course we're talking in the key of E flat major, not  
25 in D anymore. But the next chord is G minor, and so G is just

1 a note in the chord. In fact, it's the most obvious note, it's  
2 the root, and so on.

3 THE COURT: Ms. Farkas, what do you think is in those  
4 circles?

5 MS. FARKAS: Those are the chords. Obviously we all  
6 agree that the chords are at issue here. The chords are in the  
7 deposit copy. That's largely what this case is about.

8 But let's go back to slide 45, please. And I'm using  
9 a pointer here.

10 Can you see this, your Honor? If you look at this big  
11 screen here. If you look at the large screen, do you see the  
12 green light?

13 So this line here, this whole thing here and this  
14 whole thing here, I would like -- this is not -- there is no  
15 bassline. This treble right here, this whole staff, this whole  
16 line and all of these notes are not notated in the deposit  
17 copy. It's these chords that he's claiming are reflected by  
18 these letters. This is what is in the deposit copy. See how  
19 we have this here, but it's not notated in the deposit copy.

20 If you want to go back to the deposit copy, we can.

21 THE COURT: It says chords in defendant's rendition of  
22 deposit copy. Is that the same as being actually in the  
23 deposit copy?

24 MS. FARKAS: That's correct.

25 While the actual notes of the chord are not notated

1 out, the chords are. These are just the notes that make up the  
2 D chord. These are the notes that make up the F sharp chord.  
3 If you look at the deposit copy, you'll see a D and an F sharp.

4 But this, there is not -- it's nowhere notated in the  
5 deposit copy. And this, all of this was the subject of your  
6 Honor's prior rulings.

7 MR. FRANK: Actually, if I may, your Honor.

8 MS. FARKAS: There is no bassline.

9 MR. FRANK: They are conflating rulings in the  
10 parallel litigation Structured Assets with the ruling in this.

11 The issue in this case, your Honor, is Ed Sheeran,  
12 when he testified in this case in the deposition, he was asked  
13 whether he played bass guitar. And he said, No, I learned how  
14 to play from playing guitar because playing bass is exactly the  
15 same as guitar. You play the note, you play the G chord, G  
16 major chord and the note chord. The bass note correlates  
17 exactly with the G major chord.

18 He said, he himself said at his own deposition, that  
19 the bassline tracks the chord and the bassline is comprised of  
20 the root notes of the chords. That is the point we're making.

21 THE COURT: How many ways are there of making an F  
22 sharp chord?

23 MS. FARKAS: I wish I could answer that question.

24 THE WITNESS: Your Honor.

25 MS. FARKAS: The way that it's been notated, I don't

1 know.

2 This is a new slide. This has never been an issue  
3 Dr. Stewart has raised.

4 MR. FRANK: Dr. Stewart would probably answer that  
5 musicological question.

6 MS. ZAKARIN: Your Honor, if I may real quickly.

7 I don't think we have an objection to the top line in  
8 the bottom here. This is the treble clef. The treble clef is  
9 clearly notated in the deposit copy. What we object to is this  
10 second line, which is a bass clef. There is no bass clef  
11 whatsoever in the deposit copy. That has been added by  
12 Dr. Stewart. It's invented. It's not notated in the deposit  
13 copy. It should not be in this slide and it should not be in  
14 this case. This is fine. This is fine. This is not OK. This  
15 is not OK.

16 Dr. Stewart cannot show us a bass clef anywhere in the  
17 deposit copy because it does not exist in the deposit copy.

18 MR. FRANK: It's the exact same note.

19 THE COURT: Where did that come from, the bass clef?

20 THE WITNESS: So can I just repeat something your  
21 Honor that I said before?

22 THE COURT: Excuse me?

23 THE WITNESS: Could I repeat, this is not intended to  
24 be a bassline, it's simply the root note of the chord. So the  
25 first chord is D major. Obviously it contains a D. That is

1 the root note. The bassline in songs is generally not just  
2 simple like this, in terms of playing the root note of each  
3 chord. Usually a bassline is going to be more complicated and  
4 have more notes. It's going to be basically another melody,  
5 another melody down low on the bass instrument.

6 So this is adding nothing that is not indicated in the  
7 deposit copy because every one of those notes --

8 THE COURT: When you say indicated, it seems to me,  
9 quite often, you mean consistent with something that is  
10 indicated rather than being specifically indicated itself.

11 THE WITNESS: Yes, sir. Yes, your Honor.

12 THE COURT: I object to that.

13 THE WITNESS: Well, maybe then it's a poor choice of  
14 words. What I'm trying to say --

15 THE COURT: It's a poor choice of thinking because it  
16 is substituting one thing that isn't there for this case.

17 THE WITNESS: No. Every note in this example is from  
18 the deposit copy. There is not one note that anybody can point  
19 to that is not indicated or -- I'm sorry -- that is not part of  
20 that chord.

21 So, for example, in their version where it says D, the  
22 chord symbol D, none of those pitches that they chose are -- I  
23 mean, they chose those because those are three pitches in the  
24 chord D, and so it's no different than what I've done in terms  
25 of picking the notes and the chord and using them.

1           They had to make certain choices in terms of how to  
2 turn this into something that could be audible rather than just  
3 purely seen.

4           THE COURT: Why do they have to do that?

5           THE WITNESS: I can't answer that. They made that  
6 decision. We didn't do it, but I think they wanted to be able  
7 to have people hear what's in the deposit copy in addition to  
8 just see it.

9           I think that's something we need to -- they would need  
10 to be asked. We did not create it.

11           THE COURT: That does not include making us hear what  
12 is not in the deposit copy, although it is consistent with the  
13 deposit copy.

14           THE WITNESS: I don't think they have tried to make us  
15 hear anything that is not in the deposit copy. I've followed  
16 this same principle. I don't want to have anything that's not  
17 in the deposit copy --

18           THE COURT: Obviously --

19           THE WITNESS: -- in any form whatsoever.

20           We are adhering 100 percent to what is in the deposit  
21 copy. If I wanted to write a bassline, I wouldn't just have  
22 the roots of each chord. I would make up a bassline with more  
23 interest. It would be sort of an independent melody.

24           But this is just the root of each chord. So from D to  
25 F sharp, the bass goes D to F sharp, and from F sharp to G and

1 so on. The bass note is exactly just the bottom note of the  
2 chord.

3 (Continued on next page)

4 THE COURT: Why don't you leave it at that? The  
5 bottom note of the chord.

6 THE WITNESS: Well, that's what it is. I put it in a  
7 different staff. I put it so it was a lower sound because it  
8 has a richer sound.

9 THE COURT: I see.

10 THE WITNESS: But it's not intended -- my original  
11 point in all of this was how their choices made the chord  
12 progression in "Thinking Out Loud" sound very cheesy, if you  
13 will, because they didn't follow good voice leading or  
14 anything.

15 They intentionally chose, or somehow they ended up --  
16 they had to make choices on what that they wanted to use for  
17 the chords. And if we listen again to what they did, it  
18 doesn't sound good. So why did they do that are they  
19 wondering? Maybe that's something for later on to inquire  
20 about.

21 But in terms of the choice that they used, it does not  
22 sound good, and it's not something that any pianist would ever  
23 play. But every note is from the deposit copy in both of these  
24 examples. There is not one note that isn't.

25 MS. FARKAS: Your Honor, there are a lot of notes in

1 the deposit copy. I don't even know what that means. If he's  
2 he saying that he can just take any notes that exist anywhere  
3 in the deposit copy and use them how he wishes, and then it's  
4 fair game in this case. That's not consistent with the rulings  
5 in this case.

6                 Also he made creative choices when he created this  
7 bassline that doesn't exist in the deposit copy. He just chose  
8 to do this particular bassline when he just admitted that there  
9 are options available to a performer when performing a  
10 bassline. There are multiple ways to do it. He chose this  
11 way. None of them exist -- the deposit copy is what it is.  
12 We're all bound by it. It is what it is.

13                 What it doesn't have is a bassline. It doesn't have  
14 the bass clef. It doesn't have any of these notes. Just to  
15 give an example, he goes from the D down to the F in the  
16 bassline the first time, and then the third time he goes  
17 down -- instead of going up and down, he goes down and up.  
18 This is Dr. Stewart's view of the world. It's not the deposit  
19 copy. We have the sheet music.

20                 Can we turn to the deposit copy, please.

21                 MR. FRANK: It's not in the deposit copy. It's  
22 nowhere.

23                 MS. FARKAS: Let's go to slide 40, please.

24                 THE COURT: Does anybody have an exhibit that shows  
25 the actual deposit copy?

1 MS. FARKAS: Here is the first page of it, your Honor.

2 THE COURT: This is the deposit copy itself?

3 MS. FARKAS: That's part of the first page of it, yes.

4 We can put up the whole page if you'd like. That's what we're  
5 talking about.

6 Do you see the E with the flat symbol and the G?

7 That's the chord progression. We all agree that's the chord  
8 version. We can argue over what notes make up those chords.

9 THE COURT: But it has a bassline.

10 MS. FARKAS: No. That's the vocal note. Those are  
11 the notes that are sung when you sing those words. There is no  
12 actual second line of transcriptions that have the bass the way  
13 he does. It's just the treble. There's no bass with the  
14 bassline.

15 That's already been briefed at length and argued at  
16 length and decided. There is no bassline in this case. There  
17 is no bassline in the deposit copy. They keep trying to bring  
18 it in, and it's not part of the deposit copy.

19 THE COURT: Go back to the last original.

20 MS. FARKAS: So these are two different staffs.

21 THE COURT: Where does this bassline appear from?

22 MS. FARKAS: I'm seeing it for the first time today.  
23 It's from Dr. Stewart. I don't know. It's just something he  
24 created.

25 MR. FRANK: The deposit copy itself is in E flat. It

1 doesn't say E flat natural. So you can write the chord any way  
2 you want.

3 THE COURT: Is this something you created?

4 THE WITNESS: No more so than what they've created  
5 because every note --

6 THE COURT: That's what we call a negative.

7 THE WITNESS: No. I have not created anything.  
8 Everything, as I said, over and over is 100 percent from the  
9 deposit copy. The D that they're worried about that's in the  
10 bass from is indicated by the chord symbol.

11 THE COURT: You have to wait for a question.

12 THE WITNESS: Sorry.

13 BY MS. FARKAS:

14 Q. There is no second staff in the deposit copy. There is one  
15 staff.

16 MR. FRANK: Your Honor, you can annotate the root  
17 notes. In either clef. It's the same note. That's the only  
18 point I'm trying to make. That's it. It's the same note.  
19 When you have a D chord, the note is a D. The root note is a  
20 D. It follows, the exact harmonic rhythm.

21 If you look at the notes below, he's just saying it's  
22 not creating a new bassline. It is tracking with the chord  
23 progression, which is comprised of the root note in each chord.

24 THE WITNESS: The notes, in their rendition, is not in  
25 the deposit copy either. It says D major. That's all it says.

1 It doesn't say those type of notes that they used.

2 BY MS. FARKAS:

3 Q. That's something that you can and Dr. Ferrera can argue  
4 about. Right?

5 What you can't argue about is the interpretation that  
6 you're making. You decided to use the lower notes of the chord  
7 as you say, but that doesn't seem consistent at all. That's  
8 creative choice.

9 But you're saying that someone who performs the  
10 deposit copy -- and we all know that performances are  
11 human who make creative choices. That is not in dispute.  
12 There is no bass clef in the deposit copy, period.

13 THE COURT: Is the consequence of that that any of the  
14 possible variations would be consistent with or a similar thing  
15 or fitting into the pattern of the deposit copy?

16 MS. FARKAS: Honestly, your Honor, this is brand new.  
17 We've never seen it before. We've never heard him testify or  
18 submit any documentation about all these variations on these  
19 chords. So I'm happy to speak with my experts and get back to  
20 you later today or tomorrow about it. But we're seeing this  
21 for the first time.

22 BY MR. FRANK:

23 Q. Dr. Stewart, can you answer that question.

24 THE WITNESS: Can you repeat it, please.

25 THE COURT: When you say "faithful" to the deposit

1 copy, doesn't that mean consistent with, not changing?

2 THE WITNESS: Exactly.

3 THE COURT: It would not change the deposit copy.

4 This is more general, and this one is specific.

5 THE WITNESS: Yes.

6 THE COURT: I see. I think a nice jury question.

7 MS. FARKAS: Your Honor, just so I'm clear, the  
8 questions and answers that you just had with Dr. Stewart  
9 pertained to the treble line when he's talking about variations  
10 on the chords.

11 On that, I don't have a problem with that being the  
12 subject of something that the experts can disagree about and  
13 there can be evidence. It's the bassline. It's that second  
14 line of single notes that is not part of that chord  
15 progression.

16 MR. FRANK: Presumably you will have an expert who can  
17 opine as to whether they're the same thing or not. That's what  
18 the experts are here for. Dr. Stewart is giving his opinion.  
19 Your expert can be called and give opinion his as well.

20 MS. FARKAS: I ask that you not interrupt me.

21 This is not part of this case, your Honor. So, sure.  
22 I'm sure Dr. Stewart and Dr. Ferrera can disagree about endless  
23 issues on musicology. We're here to talk about what's at issue  
24 in this case and what's in the deposit copy.

25 So that bassline is not in the deposit copy. It's not

1 there. We can look at it. It doesn't exist. Dr. Stewart is  
2 saying it's implied. It's one possible thing that could be  
3 extracted from it. It's not there. So to present it to the  
4 jury we think --

5 THE COURT: I think it is a jury question. The reason  
6 is because it was conceived independently of the sound  
7 recording and therefore is not offering a competing source as a  
8 result.

9 I think it's ideally set up for cross-examination. I  
10 think, in view of the increasing hour, we've put nothing on  
11 that issue. It's better left. Tomorrow is another day,  
12 another ruling.

13 BY MR. FRANK:

14 Q. Doctor, if you could proceed to slide number 46 and explain  
15 what you've done there.

16 A. So this is just simply going through "Thinking Out Loud"  
17 the same way, so that the jury and the Court can see and hear  
18 the form of "Thinking Out Loud." This is, again, using  
19 Dr. Ferrera's analysis of the form and with the timings of each  
20 section.

21 If you could please play it.

22 (Audio played)

23 THE WITNESS: If you wanted to save time -- it's just  
24 playing the entire recording of "Thinking Out Loud."

25 MR. FRANK: In the interest of time, can we go to the

1 next slide.

2 THE COURT: Yes.

3 THE WITNESS: Thank you.

4 BY MR. FRANK:

5 Q. What have you done here with respect to the deposit copy,  
6 Dr. Stewart?

7 A. So this slide compares the first melodic phrase of "Let's  
8 Get It On" from the deposit copy with the first melodic phrase  
9 of the verse in "Thinking Out Loud." Let's give it a listen.

10 (Audio played)

11 MR. FRANK: Let's proceed to slide number 48, please.

12 Q. Could you describe for the Court your analysis here.

13 A. This was just an attempt by me to reduce a little bit of  
14 the clutter that's in the notes on the deposit copy because  
15 they're inaudible. There are some 30-second and 16th notes in  
16 the deposit copy that are impossible to hear at that tempo,  
17 especially when you're hearing them on a vowel that's being  
18 stretched. It's not even a consonant. So you can certainly  
19 try. To try to sing a 30-second note is unthinkable, a 10th of  
20 a second at this tempo.

21 To distinguish separate notes from the same pitch are  
22 not -- it's not humanly perceivable. Let's listen to it and  
23 compare.

24 So the top example is the example as exactly as  
25 written in the deposit copy, and the bottom example is the

1 audible notes. And I think that there is no perceivable  
2 difference.

3 If you could play it, please.

4 (Audio played)

5 MS. FARKAS: So, your Honor, we have an objection to  
6 this slide because the second example removes 2 of the 14 notes  
7 that are actually in the deposit copy. He also changes the  
8 rhythmic duration of some of the notes.

9 So essentially, while the top example is actually  
10 what's in the deposit copy, the bottom is not what's in the  
11 deposit copy. In fact, last month, your Honor, when you  
12 granted our seventh motion in limine, based on another  
13 performance of the deposit copy, two different ones that the  
14 plaintiffs tried to get in, you ruled that omissions,  
15 additions, and errors in the creation of those exhibits render  
16 them unreliable and admissible.

17 That's exactly what they're doing here. He has  
18 admittedly taken out two notes that he claims are inaudible.  
19 This is sheet music. They're there. It has nothing to do with  
20 whether it's audible or not because we're talking about things  
21 written down on a piece of paper, sheet music. He's taken 14  
22 notes and made it 12.

23 MR. FRANK: I think what she was referring to was a  
24 live performance by a guitar player which was excluded by the  
25 Court. What we're talking today about here today actual sheet

1 music.

2 Dr. Stewart disclaimed the section on the bottom  
3 specifically by saying -- explain the methodology of what he  
4 did. He's trying to explain say how the notes, the weight of  
5 the notes relative to one another.

6 He's certainly entitled to do that. As part of his  
7 analysis, he hasn't suggested that the bottom demonstrates the  
8 deposit copy. He's using that as an analysis to demonstrate  
9 the weight of the notes and their relationship to one another,  
10 which he's perfectly able and allowed to do.

11 MS. FARKAS: But he's also playing a recorded  
12 performance of it. He's playing audio of the altered,  
13 manipulated melody that does not exist in the deposit copy on  
14 the second transcription. He's playing audio along with it.

15 MR. FRANK: Presumably that's what the jury is going  
16 to hear. They're going to be hearing music. They're not going  
17 to be able to read music. This would be an excellent aid, I  
18 would think, for the jury to actually hear the point that he's  
19 trying to make or illustrate that.

20 I think it's unreasonable, especially after we've been  
21 through jury selection, to ask laypeople to read the changes in  
22 the music nomenclature. The best way is to play the music.

23 He's explained and specifically given a preamble to  
24 say, I've done this to it. here's why. Here is my  
25 methodology, again, not suggesting that this constitutes the

1 deposit copy. We're just trying to make a point about the  
2 interrelationship of the notes and the weight of this.

3 MS. FARKAS: The bottom transcription and the audio  
4 recording that they want to play for the jury does not  
5 accurately reflect the deposit copy. It does.

6 MR. FRANK: Amen.

7 MS. FARKAS: We should be doing nothing other than  
8 hearing and analyzing what's actually in the deposit copy.

9 THE COURT: I think that's a point that should be  
10 safely reserved for trial.

11 BY MR. FRANK:

12 Q. Dr. Stewart --

13 If you could go to the next slide here.

14 It's entitled pitch sequences.

15 What exactly did you do here with regard to melodic  
16 similarities?

17 A. Well, at the beginning of the session today, I talked about  
18 pitch sequences and using numerals to represent the pitches.

19 Q. That's embodied by the numerals at the bottom of that  
20 slide; correct?

21 A. That's correct. The Arabic numerals at the bottom give the  
22 pitch numbers, and they're also indicated underneath the notes  
23 in each example.

24 Q. What were you trying to accomplish here or demonstrate with  
25 these two samples?

1 A. Just to illustrate the similarity between these two  
2 phrases. I did one other thing here, because I think that it's  
3 a valid way to compare these two melodies because, for example,  
4 if this were taken from "Let's Get It On," then it's certainly  
5 possible that the last note was left off of the taking.

6 So I wanted to hear what it sounds like without the  
7 last note. That's all I've done here. I've been explicit  
8 about what I did so that people could hear.

9 I'm reminded of this case that was just in the news  
10 about a tractor-trailer that was robbed of 10,000 dimes or  
11 \$200,000 worth of dimes, and the thieves left behind \$500,000  
12 worth of dimes because they couldn't carry them or for whatever  
13 reason.

14 But I think once they're apprehend, which they  
15 certainly will be, because what are you going to do with all  
16 those dimes, their defense cannot be, well, we didn't take all  
17 the dimes. So my attempt here is to just show that that one  
18 final note not being present yields an interesting comparison.

19 BY MR. FRANK:

20 Q. And do you have audio samples to demonstrate that?

21 A. Yes, I do.

22 MS. FARKAS: Your Honor, I object. That entire  
23 recitation of a case about a case that has something nothing to  
24 do with this case I think is irrelevant and should be stricken  
25 tomorrow if it comes up.

1           And I also want to note that -- it may be consistent  
2 with what your Honor said about the last slide. This one also  
3 now eliminates three notes and changes the rhythmic variation  
4 from the deposit copy.

5           THE COURT: This is a good example of what the parties  
6 may perfectly well claim is a misrepresentation of the actual  
7 fact and a distortion of the process of analyzing it. That,  
8 seems to me, to be true of a great many of the things that  
9 we've heard today.

10          They are of much less interest to me today because the  
11 error does not spring from the Gaye product. It springs from  
12 an independent error in the thinking process. All I'm really  
13 interested in for today, because it is going to come up very  
14 soon before the jury, is whether the Gaye product is being used  
15 in the ways that I have forbidden it to be done.

16          That does not seem to be invoked in this situation  
17 and, therefore, much less worth making a fuss about at this  
18 hour of the day when it really is going to be revealed during  
19 trial and should be handled in cross-examination.

20          Does that clear it up?

21          MS. FARKAS: Yes, your Honor.

22          THE COURT: Thank you.

23          MR. FRANK: Based on your comments, your Honor, the  
24 issues that were brought up specifically by the defendants that  
25 prompted the hearing we're having now were related to

1 references and the proposed slides to bassline and drums.

2 We have since culled those from our proposed slides.

3 There is no testimony from Dr. Stewart that's going to be

4 proffered regarding any bass or drums in "Let's Get It On."

5 We've taken them all out.

6 We still have 40 some odd more slides. So I'm  
7 reluctant to keep going, your Honor. Based on what you just  
8 said. We can review with the other side. I'll be happy to go  
9 forward if you'd like me to. But we can show them our slides  
10 that dealt with the history of --

11 THE COURT: What's your point?

12 MR. FRANK: I was wondering if it might be more  
13 efficient for the Court's time if we just showed them the  
14 specific slides that we plan to show tomorrow, take a  
15 ten-minute break and show them, and see if we can identify or  
16 isolate what they are. And then we can determine whether  
17 they're admissible or not.

18 Do you have an objection?

19 That might be given a more efficient use of the  
20 Court's time based given the fact that I think based -- we're  
21 going to hear a lot of the same objections, but their real  
22 concern is the bassline and the drums.

23 MS. FARKAS: Correct.

24 THE COURT: Is it worth a try?

25 MS. FARKAS: Yes. Why don't we take five minutes, and

1 I'm curious. Sure. I think that would be productive.

2 MR. FRANK: We just want to spare the Court another  
3 two hours if we can.

4 THE COURT: It's 10 of 5:00 now. Maybe we've covered  
5 enough ground, and you can always resume with the trial  
6 tomorrow morning.

7 MR. ZAKARIN: We'll look at this and see if that makes  
8 sense. I think the only point we were making on these slides  
9 is that they're altering what appears in the deposit copy and  
10 comparing that altered version to "Thinking Out Loud."

11 Your Honor's view -- and we accept it -- is that we  
12 can bring out that alteration in cross-examination, and that  
13 what they're trying to do is create similarly by altering the  
14 deposit copy that doesn't exist. That's an effective thing to  
15 do, and we'll do that, your Honor.

16 THE COURT: I regard all things such as altering the  
17 evidence as being an inherent part of the trial, and it ought  
18 to be exposed and fought out before the jury so the jury is  
19 better informed as the case goes along.

20 What I was interested in doing was heading off any  
21 issues which could not be cured and should not be handled in  
22 the same way. It seems to me that we've probably defined and  
23 beaten that to death, and maybe it will be adhered to tomorrow.  
24 He's not going to testify tomorrow.

25 Is that right? I thought he was going to be his first

1 witness.

2 MR. FRANK: The plaintiff will be the first witness,  
3 Kathy Griffin Townsend. She will be our first tomorrow.

4 THE COURT: Okay. When the doctor comes back.

5 MR. FRANK: We likely would get to Dr. Stewart either  
6 late Tuesday or early Wednesday.

7 THE COURT: Well, the point is that I think that the  
8 distinction and the reasoning behind it has been made painfully  
9 clear. And if it is breached upon his return to the jury, I  
10 don't see any reason why the response from the bench should not  
11 be summary. As I say, I would allow cross-examination before  
12 he actually deploys.

13 MR. ZAKARIN: Understood, your Honor.

14 THE COURT: But I would consider that a  
15 situation-demanding determination of his testimony.

16 MR. ZAKARIN: Thank you, your Honor.

17 MR. FRANK: Thank you, your Honor.

18 THE COURT: We'll resume at 11:00 tomorrow.

19 MS. FARKAS: I do agree with Mr. Frank that I think  
20 the vast majority of what remains I think falls into that same  
21 category. And we can, for lack of better words, skip over it.  
22 There are two other issues relating to the remaining slides.  
23 If I could have three minutes with Mr. Frank and a few minutes  
24 with my colleagues, I think it's well worth raising today. I  
25 think it would be brief, but they're of a different variety.

1 They would be brief.

2 THE COURT: What are the two issues?

3 MS. FARKAS: One of the issues is that there are  
4 portions of Dr. Stewart's proposed remaining testimony that  
5 relate to prior art and anticipated testimony of Dr. Ferrera.

6 The plaintiffs have the burden of proof -- evidence  
7 that they are anticipating that Dr. Ferrera will be testifying  
8 about. The plaintiffs have the burden of proof to make out a  
9 prima facia case.

10 Part of the plaintiffs' burden of proof is to prove  
11 that the combination of elements that they have placed in issue  
12 that are in the deposit copy are unique and original to "Let's  
13 Get It On." As your Honor will recall, Dr. Stewart is  
14 prohibited from testifying about any sort of prior art searches  
15 because of his failure --

16 THE COURT: What's your point?

17 MS. FARKAS: My point is that we are concerned that  
18 they are trying on their case to fill evidentiary gaps that  
19 Dr. Stewart is not allowed to testify about by anticipating  
20 prior art that Dr. Ferrera may or may not testify about.

21 It is their case. They have the burden of proof. He  
22 should not be permitted to anticipate what Dr. Ferrera might  
23 say on areas that he has been prohibited from testifying about.

24 THE COURT: What do you want me to do?

25 MS. FARKAS: I want to prohibit him from testifying

1 about things that Dr. Ferrara might say about examples of prior  
2 art so that he can try to rebut it based on evidence that's not  
3 in the record at this point. It's rebuttal evidence is my  
4 point.

5 THE COURT: We will go to that bridge when Dr. Ferrera is  
6 called as a witness and evidence is offered to which you want  
7 to object on those grounds.

8 MS. FARKAS: The other issue is the mash-up. You have  
9 our motion in limine on that issue. There is a slide in the  
10 remaining slides that apparently Dr. Stewart is going to  
11 testify about the mash-up. You have our motion on that.  
12 That's just a remaining issue that hasn't been ruled upon yet.

13 THE COURT: What do you want me to do about that?

14 MS. FARKAS: We have made a motion to exclude this  
15 melody performance as irrelevant and prejudicial.

16 THE COURT: I think I'll reserve that question until  
17 it comes up at trial.

18 MS. FARKAS: Sure, but it's coming up.

19 THE COURT: I've been here all day, and I haven't  
20 heard a thing about it.

21 MS. FARKAS: Your Honor, I simply thought that part of  
22 the purpose of today was to raise these issues now so that, to  
23 the extent you wanted to limit them, you would limit them  
24 before they came up before the jury. We're happy to wait for  
25 tomorrow or whenever he testifies.

1 THE COURT: No. I called this hearing for the reasons  
2 I stated at the beginning and not merely to give a series of  
3 advisory opinions.

4 MS. FARKAS: Fair enough, your Honor. Thank you.

5 MR. FRANK: Thank you, your Honor.

6 THE COURT: See you tomorrow.

7 (Adjourned to April 25, 2023, at 11:00 a.m.)

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